

CHANGE IN PRIORITY SCORE (NEED FOR SURGERY) OF PATIENTS WAITING FOR KNEE ARTHROPLASTY

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BACKGROUND AND OBJECTIVE

Several countries that have public health systems with universal coverage and important waiting lists for knee arthroplasty have developed prioritization systems to order patients on waiting lists according to their need for surgery. Because of the possible worsening (increase in need) of patients while waiting for surgery, the objective of this study was to evaluate the change in priority score of patients waiting for knee arthroplasty.

METHODS

The prioritization system included clinical, functional and social criteria, ranking from 0 to 100, higher scores meaning greater need (Table 1). The priority scores of 207 patients from the orthopaedic surgery department of a teaching hospital (Hospital de l'Esperança, Barcelona, Spain) were assessed by a physician at inclusion in the waiting list, and at the preoperative visit. Changes in the global priority score and by criterion were calculated. Priority score at entry in the waiting list was categorized in three groups: up to 35, between 36 and 56, and 57 points or more. A linear model for the change in priority score adjusted by time between measurements, age, sex and priority group at inclusion was fitted.

RESULTS

The mean time between measurements was 15.3 months (standard deviation (SD) 7,8). The mean priority scores at inclusion in WL and at the preoperative visit are shown in table 2. Patients with low and medium priority score at entry on the waiting list presented a greater increase in priority score than patients who had more than 57 points (table 2). The priority score increased in 61.4% of patients. Among them, 38.3% worsened in functional disability, 36.7% in pain and 30.8% in severity of the disease, while a 20% increased their need for surgery because they had someone to care for at the preoperative visit (figure 1). No relationship was found between change in priority score and time between measurements (Pearson's correlation coefficient of -0.061, $p=0.38$). Patients who waited for 12 months or longer presented a smaller difference than patients who waited for less than one year (table 3).

Table 1: Prioritization system for knee arthroplasty

Criteria and levels	Score
Disease severity	
Moderate	0
Severe	18
Pain	
Mild	0
Moderate	17
Severe	33
Recovery probability	
Moderate	0
High	4
Limitation in doing everyday activities	
Some difficulty	0
Great difficulty	10
Unable to do most of everyday activities	20
Limitation on ability to work	
No or does not work	0
Yes	10
Has someone looking after him/her	
Yes	0
No	9
Has someone to look after	
No	0
Yes	6

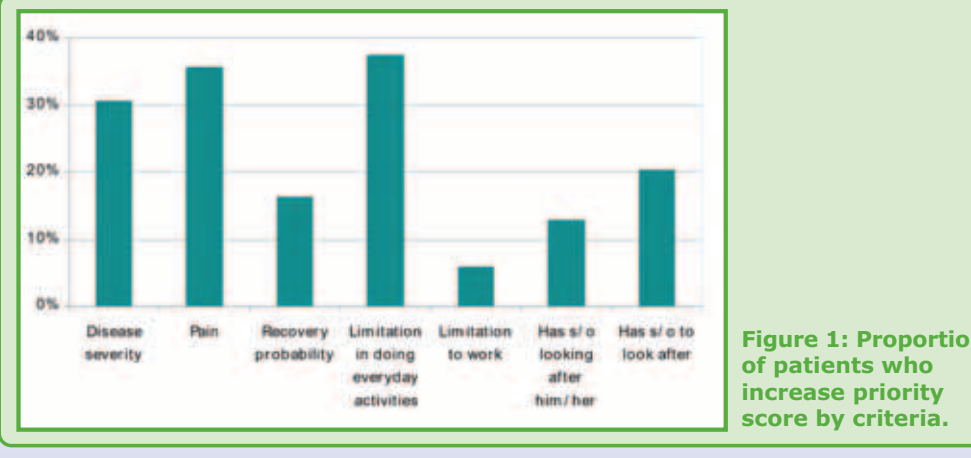


Figure 1: Proportion of patients who increase priority score by criteria.

Table 2: Descriptives of the priority score at entry in waiting list, preoperatively and change between them.

	Priority score		
	at entry in waiting list	preoperative	Change
Overall (n=207)			
Mean (SD)	42.9 (16.0)	49.9 (17.7)	7.0 (15.2)
Median	45	49	6
Minimum-Maximum	4 - 85	4 - 95	-34 - 45
Levels of priority at entry in waiting list			
Up to 35 points (n=73)			
Mean (SD)	25.3 (6.2)	37.5 (14.9)	12.2 (15.1)
Median	27	35	10
Between 36 and 56 (n=95)			
Mean (SD)	46.9 (5.1)	53.2 (13.7)	6.3 (13.8)
Median	49	51	4
More than 56 (n=39)			
Mean (SD)	65.9 (8.5)	65.0 (15.7)	-0.8 (15.6)
Median	64	65	0

* SD: Standard Deviation

Table 3: Change in priority score by levels of priority and time between assessments.

Time between assessments	Priority score at entry in waiting list		
	Up to 35 points	Between 36 and 56	More than 56 points
Less than 12 months (n=91)	20.9 (12.3)	8.9 (10.6)	1.2 (14.8)
12 months or more (n=116)	10.0 (15.0)	3.5 (16.6)	-5.3 (16.9)

* Cells content: Mean (Standard Deviation)

CONCLUSIONS

More than 60% of the evaluated patients presented an increase in priority (or need) for surgery since they were indicated until they had their preoperative visit. The rest of patients maintained their priority score or decreased their need. This fact may be associated with the cyclicity of osteoarthritis and its symptoms. Patients with the highest increase in priority score were those who entered the waiting list with low or medium scores. This may be due to the fact that patients who have a low value in the scale are more likely to worsen (increase need) and in a higher magnitude than patients who initially presented a higher priority. For times between assessments of one year or more, the magnitude of change in priority is confusing, this would recommend reassessment of the patients who wait for longer than one year, as it is difficult to predict how would have changed their priority and its consequences on the ordering of the patient in the waiting list.

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